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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,223	08/10/2000	Jenn-Tsair Tsai	4504-013	6462

7590 12/05/2003

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EXAMINER

WORKU, NEGUSSIE

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/635,222-223

Applicant(s)

TSENG, HORNG-HUEI

Examiner

Negussie Worku

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 7-19 is/are rejected.
- 7) ☒ Claim(s) 2-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, lines 2, "employed" is not clear need correction, and the last line of the last paragraph (5), of claim 1, achieving a relative "**big value**" is not clearly defined or is not descriptive. Claims 2-10, are rejected for depending in claim 1.

### *Claim Objections*

3. Claims 2, 3-9, 11-19, are objected to because of the following informalities:  
In claims 2, 3 and 7 of the first line, after "wherein" --**in**-- should be inserted. In claim 4 and 6, of 3rd line "1 MTF" is not clear an appropriate correction is required. In claim 7, line 2 "comprising" should be --comprises--. And in claim 11, line 6, "al" should be --at--.  
Claims 4-6,8, 10 and 12-19 are objected to for depending on claims 3 and 11.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claims 1, 7, 8, 10-12, 17, are rejected under 35 U.S.C. 102(e) as being anticipate by Tsai et al, (USP 6557762).

With respect to claim 1 , Tsai discloses a method for optimizing the best resolution of an optical scanning device, (as shown in fig 3-4, see col.4, 19-25), said method employed in assembling processes for enabling an assembling technician to find the best resolution, see (col.4, lines 19-24) said optical scanning device (32 of fig 3) including at least an image capturing device, (320 of fig 3) a lens and a document glass, (321 of fig 3) with support of a calibration device (correction document 34 of fig 3) and an adjusting device, (glass plate 321 of fig 3) said method comprising the steps of fixing said image capturing device (320 of fig 3) and said document glass (glass plate 321 of fig 3) in a predetermined position, said lens (lens 322 of fig 3) is movable between said image capturing device (320 of fig 3) and said document glass; (321 of fig 3), placing said calibration device (document 34 of fig 3) on said document glass (321 of fig 3) and connecting said adjusting device to said image capturing device (320 of fig 3); reading values of a right side horizontal MTF, a right side vertical MTF, a left side horizontal MTF and a left side vertical MTF from said adjusting device, (MTF as shown in fig 3-4, see col.1, lines 30-35); calculating (distance calculation, see col.3, lines 31-33) the values of said right side horizontal MTF, said right side vertical MTF, said left side horizontal MTF and said left side vertical MTF to generate a referencing parameter, see (col.3, lines 30-34) wherein said

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referencing parameter is displayed in order to inform said assembling technician, see (col.4, lines 19-24); and adjusting the position of said lens, (322 of fig 3) when the value of said referencing parameter achieving a relative big value, fixing said lens, see (col.3, lines 48-53).

With respect to claim 7, Tsai et al., discloses the method wherein the step of displaying, said adjusting device further comprising a display (the output device, see col.3, lines 44-46, could be a display device) for display said referencing parameter, see (col.4, lines 19-22).

With respect to claim 8, Tsai discloses the method wherein said display (output device, see col.3, lines 44-46) is digital type for displaying said referencing parameter, see (col.4, lines 19-22).

With respect to claim 10, Tsai discloses the method wherein said image capturing device (as shown in fig 3-4) is a charged coupled device (image generating 320 of fig 3, a CCD, see col.2, lines 17-19).

With respect to claim 11, Tsai et al. discloses an apparatus for optimizing the best resolution of an optical scanning device, (as shown in fig 2-5) said optical scanning device (scanning module 32 of fig 3) including an image capturing device, (image generating device 320 of fig 1) a lens, (lens 322 of fig 3) a document glass (glass plate 321 of fig 3) and conveying device, said conveying device able to move said image capturing device, (320 of fig 3) said apparatus

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comprising: a calibration device, (correction document 34 of fig 3, have drawings and lines printed on he correction document for an adjustment purpose, see col.3, lines 35-38, and used as a calibration device) placed on said document glass, (document glass 321 of fig 3) said calibration device (correction document 34 of fig 3, includes drawings and lines printed on he correction document for an adjustment purpose, see col.3, lines 35-38, and used as a calibration device) containing at least four prints, (drawings and lines printed on correction document 34 of fig 3, see col.3, lines 37-39) such as a right side horizontal calibration print, a right side vertical calibration print, a left side horizontal calibration print and a left said vertical calibration print, see (col.3, lines 35-38).

With respect to claim 12, Tsai et al. discloses the apparatus (as shown in fig 3) further comprising: an adjusting device, (correction document 34 of fig 3) connected to said image capturing device, (image generating device 320 of fig 3) for receiving image signals of said image capturing device, (32 of fig 3) calculating relative MTF values, see (col.3, lines 31-32, distance is calculated) and generating a referencing parameter, see col.3, lines 30-35, and 44-50.

With respect to claim 17, Tsai et al., discloses the apparatus (as shown in fig 3) wherein said adjusting device (correction document 34 of fig 3, which in includes line, for a correction) further comprising a display (output device, see col.3, lines 44-45, the acquired value of MTF

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displayed by output device for displaying to analyze image with respect to reference value) for displaying said referencing parameters, see (col.3, lines 44-49)

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13-16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al. (USP 6557762), in view of Wield (USP 6016207).

With respect to claim 13, Tsai et al., does not disclose wherein said right side horizontal calibration print is positioned on the right side of said calibration device, and contains a plurality of parallel lines which are perpendicular to the horizontal direction.

However, Wield, in the same area of calibration of optical system regarding calibration print, see (fig 5-8), teaches wherein said right side horizontal calibration print (pattern 505 of fig 5) is positioned on the right side of said and contains a plurality of parallel lines which are perpendicular to the horizontal direction, see (col.4, lines 25-33).

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Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. to include: calibration print that contains a plurality of parallel lines which are perpendicular to the horizontal direction.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. by the teaching of Wield (6016207), because it would have provided users a method that includes a calibration print (pattern) that can be used to adjust the scanner for the purpose of increasing the depth of the scanning field to get a better quality of scanned image.

With respect to claim 14, Tsai does not disclose wherein said right side vertical calibration print is positioned on the right side of said calibration device, and contains a plurality of parallel lines which are inclined with the horizontal direction by a predetermined angle.

However, Wield, in the same area of calibration of optical system regarding calibration print, see (fig 5-8), teaches wherein said vertical side calibration print (pattern 505 of fig 5) is positioned on the right side of said and contains a plurality of parallel lines which are inclined with the horizontal direction by a predetermined angle, see (col.4, lines 25-33).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time



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the invention was made to have modified the image scanning apparatus system of Tsai et al. to include: calibration print that contains a plurality of parallel lines which are inclined to the horizontal direction by a predetermined angle.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. by the teaching of Wield (6016207), because it would have provided users a method that includes a calibration print (pattern) that can be used to adjust the scanner for the purpose of increasing the depth of the scanning field to get a better quality of scanned image.

With respect to claim 15, Tsai et al., does not disclose wherein said left side vertical calibration print is positioned on the left side of said calibration device, and contains a plurality of parallel lines which are perpendicular to the horizontal direction of said calibration device.

However, Wield, in the same area of calibration of optical system regarding calibration print, see (fig 5-8), teaches wherein said vertical side calibration print (505 of fig 5) is positioned on the right side of said and contains a plurality of parallel lines (pattern 55 of fig 5, are in parallel) which are inclined with the horizontal direction by a predetermined angle, see (col.4, lines 25-33).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. to

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include: calibration print that contains a plurality of parallel lines which are perpendicular to the horizontal direction.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. by the teaching of Wield (6016207), because it would have provided users a method that includes a calibration print (pattern) that can be used to adjust the scanner for the purpose of increasing the depth of the scanning field to get a better quality of scanned image.

With respect to claim 16, Tsai does not disclose the wherein said left side vertical calibration print is positioned on the left side of said calibration device, and contains a plurality of parallel lines which are inclined with the horizontal direction of said calibration device by a predetermined angle.

However, Wield, in the same area of calibration of optical system regarding calibration print, see (fig 5-8), teaches wherein said left side vertical calibration print (505 of fig 5) is positioned on the left side and contains a plurality of parallel lines (pattern 55 of fig 5, are in parallel) which are inclined with horizontal direction of said calibration device by a predetermined angle, see (col.4, lines 25-33).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. to include: calibration print that contains a plurality of parallel lines which are inclined to the a predetermined angle.

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It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the image scanning apparatus system of Tsai et al. by the teaching of Wield (6016207), because it would have provided users a method that includes a calibration print (pattern) that can be used to adjust the scanner for the purpose of increasing the depth of the scanning field to get a better quality of scanned image.

8. Claim 9, is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al., in view of well known prior art (MPEP 2144.03).

With respect to claims 9, Tsai et al., fail to specifically disclose wherein said display is light indicating type for displaying said referencing parameter.

The examiner takes official notice of that it is well known in the art that display is light indicating type for displaying reference parameter.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tsai et al., (USP 557762) in view well known prior art (MPEP 2144.03), with display is a light indicating type.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a light indicating type display for the purpose of giving a blinking or a light indicating signal a user to make aware of data is displayed on the display means for further use.

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9. Claims 18 and 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al., in view Wield (USP 6026207), further in view of well known prior art (MPEP 2144.03).

With respect to claims 18, Tsai et al., fail to specifically disclose wherein said display is light indicating type for displaying said referencing parameter.

The examiner takes official notice of that it is well known in the art that display is light indicating type for displaying reference parameter.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tsai et al., (USP 557762) in view of Wield (USP 6016207) with display is a light indicating type.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a light indicating type display for the purpose of giving a blinking or a light indicating signal a user to make ware of data is displayed on the display means for further use.

With respect to claim 19, Tsai et al., fail to specifically disclose wherein said display is digital type for display.

The examiner takes official notice of that it is well known in the art that display is display is digital type for displaying reference parameter.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tsai et al., (USP 557762) in view Wield (USP 6016207) with digital type display.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to use a digital type display for the purpose of displaying the calculated numerically outputted reference value.

***Objected claims having Allowable subject matter***

10. Claims 2, 3-6, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 2, the prior art does not disclose wherein the step of generating, said referencing parameter is the sum of the values of said right side horizontal MTF, said right side vertical MTF, said left side horizontal MTF and said left side vertical MTF.

With respect to claims 3-6, the prior art does not disclose wherein the step of generating, said referencing parameter is the difference between a value of a balance MTF and the sum of the values of said right side horizontal MTF, said right side vertical MTF, said left side horizontal MTF and said left side vertical MTF.

11. Any inquiry concerning this communication or earlier communication from Examiner should be directed to *Negus Worku* whose telephone number is (703) 305 5441.

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The Examiner can normally be reached on M-F, 9 am - 6 pm if attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, *Kimberly Williams*, can be reached on (703) 305-4863.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306, and any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



11/20/03

*KAWilliams*  
**KIMBERLY WILLIAMS**  
**SUPERVISORY PATENT EXAMINER**